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APPENDIX 5 - DATA TABLES FOR MODELED POLICIES
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#### **APPENDIX 5 - DATA TABLES FOR MODELED POLICIES**

Tables that follow present output data of policies that were modeled. These tables are the source of much of the information found in the figure and table in the impact section of each policy in Chapters 4. The last page of these tables shows the impacts of the set of policies selected for the composite policy case, which is discussed in Chapter 5.

A List of Data Tables for this appendix follows to allow the reader to find the data table for any of the policies modeled individually in Chapter 4, or for the composite policy case that is discussed in Chapter 5. The data table for the composite policy case shows the impacts of the policies selected from the inventory in Chapter 4 that were modeled as though they were implemented together so that the impacts of the composite policy case can be evaluated against the base case, the "business as usual" scenario. **Policies selected for the composite policy case are in bold type.** 

Because of the large amount of information in each data table, the type size is quite small. A larger version (11 X 17 inches) of any table in this appendix is available by contacting the Department of Public Service.

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For each proposed policy change, the effect of the change on the following indicators is displayed in the tables:

## **ENERGY**

Total Energy Use, Delivered (TBTU)

Residential Energy Use Including Transportation, Delivered (TBTU)

Commercial Energy Use Including Transportation, Delivered (TBTU)

Industrial Energy Use Including Transportation, Delivered (TBTU)

Residential Energy Use Excluding Transportation, Delivered (TBTU)

Commercial Energy Use Excluding Transportation, Delivered (TBTU)

Industrial Energy Use Excluding Transportation, Delivered (TBTU)

Transportation Energy Use, Delivered and Primary (TBTU)

Total Energy Use, Primary (TBTU)

Residential Energy Use Including Transportation, Primary (TBTU)

Commercial Energy Use Including Transportation, Primary (TBTU)

Industrial Energy Use Including Transportation, Primary (TBTU)

Residential Energy Use Excluding Transportation, Primary (TBTU)

 $Commercial\ Energy\ Use\ Excluding\ Transportation,\ Primary\ (TBTU)$ 

Industrial Energy Use Excluding Transportation, Primary (TBTU)

Note: Following Data Uses Delivered Energy

#### **SUSTAINABILITY**

Non-Renewable Energy Use (TBTU)

Per Capita Non-Renewable Energy Use (MMBTU)

Renewable Energy Use (TBTU)

Percent of Total Energy Use from Renewables

#### **ENERGY EFFICIENCY**

Total Energy Use (TBTU)

Transportation Sector Energy Use as a % of 1990 Use

Total Energy Use/GSP (BTU/1995\$)

Commercial and Industrial Energy Use Incl. Trans./GSP (BTU/1995\$)

Per Capita Total Energy Use (MMBTU)

Per Capita Residential Energy Use Incl. Trans. (MMBTU)

## **SECURITY**

Total Energy Expenditure/GSP (1995\$/1995\$)<sup>a</sup>

Total Oil Use (TBTU)

Oil Use as a % of Total Energy Use

#### **ECONOMIC VITALITY**

Employment (Thousands)

Gross State Product (Billions 1995\$)

Per Capita Gross State Product (1995\$)

Per Capita Disposable Income (1995\$)

# **AFFORDABILITY**

Energy Costs Net of Policy Taxes (Millions 1995\$)

Policy Taxes (Millions 1995\$)

Other Costs Related to Policy (Millions 1995\$)<sup>b</sup>

Cost of Air Emissions (Millions 1995\$)<sup>c</sup>

Total of Energy, Related, and Emissions Costs (Millions 1995\$)

Residential Energy Expenditure Including Transportation (Millions 1995\$)<sup>a</sup>

Commercial Energy Expenditure Including Transportation (Millions 1995\$)<sup>a</sup>

Industrial Energy Expenditure Including Transportation (Millions 1995\$)<sup>a</sup>

Transportation Energy Expenditure (Millions 1995\$)<sup>a</sup>

Per Household Income Minus Res. Energy and Related Costs (1995\$)<sup>a</sup>

Per Capita Income Minus Res. Energy and Related Costs (1995\$)<sup>a</sup>

Per Household Residential Energy Expenditure (1995\$)<sup>a</sup>

Per Capita Residential Energy Expenditure (1995\$)<sup>a</sup>

Per Household Res. Energy Exp. as a % of Poverty Level Inc. a d

Residential Energy Expend. as a % of Real Personal Income<sup>a</sup>

Policy Costs/Energy Savings (1995\$/MMBTU)<sup>e</sup>

Total of Energy Costs per Capita (1995\$)<sup>t</sup>

# **ENVIRONMENTAL SOUNDNESS**

Greenhouse Gases (CO<sub>2</sub> Equivalent Tons)

Acid Rain Precursors (Tons)

Ground Level Ozone Precursors (Tons)

Greenhouse Gas Emissions as a Percent of 1990 Emissions

Total GREENHOUSE GAS per \$ of Real GSP (CO<sub>2</sub> Equivalent Lbs/1995\$)

Policy Costs/GREENHOUSE GAS Reduction (1995\$/Ton CO<sub>2</sub> Equiv.)<sup>e</sup>

SO<sub>2</sub> Emissions (Tons)

PM10 Emissions (Tons)

NO<sub>x</sub> Emissions (Tons)

**VOC Emissions (Tons)** 

N<sub>2</sub>O Emissions (Tons)

CO Emissions (Tons)

CO<sub>2</sub> Emissions (Tons)

CH<sub>4</sub> Emissions (Tons)

# Each table includes the following tabulations for each indicator:

- > Actual 1990 value
- Estimated 1995 value (extrapolated from 1991 data)
- Forecasted values for the base case (business as usual scenario) for 2000, 2005, and 2015
- Forecasted values when the policy (or policies) is implemented (usually starting in 1997) for 2000, 2005, and 2015
- ➤ Cumulative effects of both the base case and policy forecasts between 1997-2020 (sum of the annual numbers). When the indicator is a percent or a proportion, this cumulative effect is the mean of the annual numbers between 1997-2020.
- ➤ Difference (and percent change) between the base case and policy forecasts for selected years and over the entire period between 1997-2020.

# Notes that Appear on the Bottom of each Data Table

The cumulative columns provide data from the years 1997 to 2020.

<sup>a</sup>Includes policy taxes.

<sup>b</sup>Other Costs Related to Policy include changes in the capital, operation, and maintenance costs of energy using devices between the base case and policy case.

<sup>c</sup>Calculated using the following DPS air emissions adders: \$1,885 per ton for sulfur dioxide, \$9,757 per ton for suspended particles less than 10 microns; \$9,783 per ton for nitrogen oxides; \$6,541 per ton for volatile organic compounds; \$4,878 per ton for nitrous oxide; \$1,064; \$27 per ton for carbon dioxide; \$266 per ton for methane. All values given in 1995 dollars. See Prefiled Testimony of William Steinhurst, Vermont Public Service Board Docket 5826, 1995 for more information on how the values were determined.

<sup>d</sup>Poverty level income for a family of 3 is calculated using the federal poverty line of \$12,590 and subtracting the \$919 paid to Social Security (1995 dollars).

<sup>e</sup>Policy Costs are equal to the change in Energy Costs plus the change in Other Costs Related to Policy. Changes in the Cost of Air Emissions are not included in Policy Costs.

<sup>f</sup>Total of Energy, Related, and Emissions costs per capita.